

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:

Patent No.:

Filed:

Issue Date:

Title:

Commissioner for Patents  
Washington, D.C. 20231

**POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST  
(REVOCATION OF PRIOR POWERS)**

As assignee of record of each of the patents listed in the table of attachment A,

**REVOCATION OF PRIOR POWERS OF ATTORNEY**

all powers of attorney previously given in each of the listed patents are hereby revoked, and

**NEW POWER OF ATTORNEY**

the following attorneys/agents are hereby appointed to prosecute this patent/application and to transact all business in the Patent and Trademark Office connected therewith: I hereby appoint all attorneys of Thomas, Kayden, Horstemeyer & Risley, LLP, who are listed under the USPTO Customer Number shown below as the attorneys to prosecute this patent/application and to transact all business in the United States Patent and Trademark Office connected therewith, recognizing that the specific attorneys listed under that Customer Number may be changed from time to time at the sole discretion of Thomas, Kayden, Horstemeyer & Risley, LLP, and request that all correspondence about the application be addressed to the address filed under the same USPTO Customer Number:

**15650**

Patent Trademark Office

Please direct all future correspondence and telephone calls to:

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**THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.**  
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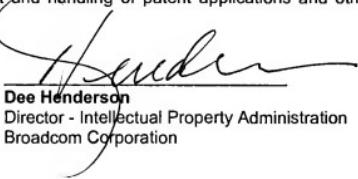
**ASSIGNEE OF ENTIRE INTEREST**

**BROADCOM CORPORATION**  
5300 California Avenue  
Irvine, California 92617-3038

**ASSIGNEE CERTIFICATION**

The certification under 37 C.F.R. §3.73(b) establishing the right of assignee to take action is attached hereto along with documentation evidencing same. Further, in my official position with Broadcom Corporation, I am authorized to sign documents and otherwise act on its behalf in connection with the management and handling of patent applications and other intellectual property matters.

Date: 9/12/11

  
**Dee Henderson**  
Director - Intellectual Property Administration  
Broadcom Corporation

**Attachment A**

| No. | Patent No | BD No.                    | Patent Title  | Issue Date | BD Assign't (Reel/Frame) |
|-----|-----------|---------------------------|---|------------|--------------------------|
| 1   | 7957606   | BU5253<br>050228-4180     | SYSTEM AND METHOD FOR EDGE SHARPENING   | 06/07/11   | 023811/0361              |
| 2   | 7924944   | BU5305<br>050228-4190     | METHOD AND SYSTEM FOR MULTI-BAND DIRECT CONVERSION COMPLIMENTARY METAL-OXIDE-SEMICONDUCTOR (CMOS) MOBILE TELEVISION TUNER | 04/12/2011 | 018067/0536              |
| 3   | 6571181   | BU1139<br>050228-4200     | SYSTEM AND METHOD FOR DETECTING A DEVICE REQUIRING POWER  | 05/27/03   | 018068/0866              |
| 4   | 7054779   | BU1139C1<br>050228-4210   | SYSTEM AND METHOD FOR DETECTING A DEVICE REQUIRING POWER  | 05/30/06   | 018068/0866              |
| 5   | 7174259   | BU1139C2<br>050228-4220   | SYSTEM AND METHOD FOR DETECTING A DEVICE REQUIRING POWER  | 02/06/07   | 018068/0866              |
| 6   | 6954708   | BU1139D1<br>050228-4230   | SYSTEM AND METHOD FOR DETECTING A DEVICE REQUIRING POWER  | 10/11/05   | 018068/0866              |
| 7   | 7254495   | BU1139D1C1<br>050228-4240 | SYSTEM AND METHOD FOR DETECTING A DEVICE REQUIRING POWER  | 08/07/07   | 018068/0866              |
| 8   | 6643595   | BU1139D2<br>050228-4250   | SYSTEM AND METHOD FOR DETECTING A DEVICE REQUIRING POWER  | 11/04/03   | 018068/0866              |
| 9   | 7082372   | BU1139D2C1<br>050228-4260 | SYSTEM AND METHOD FOR DETECTING A DEVICE REQUIRING POWER  | 07/25/06   | 018068/0866              |
| 10  | 7164659   | BU2037<br>050228-4280     | ADAPTIVE GAIN CONTROL BASED ON ECHO CANCELLER PERFORMANCE INFORMATION   | 01/16/07   | 012818/0159              |
| 11  | 7177278   | BU1434<br>050228-4290     | LATE FRAME RECOVERY METHOD  | 02/13/07   | 012818/0848              |
| 12  | 7460479   | BU1434C1<br>050228-4300   | LATE FRAME RECOVERY METHOD  | 12/02/08   | 012818/0848              |
| 13  | 7254120   | BU1436<br>050228-4310     | DATA RATE CONTROLLER  | 08/07/07   | 012766/0986              |
| 14  | 7089390   | BU1886<br>050228-4320     | APPARATUS AND METHOD TO REDUCE MEMORY FOOTPRINTS IN PROCESSOR ARCHITECTURES   | 08/08/06   | 012634/0456              |
| 15  | 7197600   | BU2023<br>050228-4330     | TRANSFERRING DATA ALONG WITH CODE FOR PROGRAM OVERLAYS  | 03/27/07   | 012614/0097              |
| 16  | 7263074   | BU2038<br>050228-4340     | VOICE ACTIVITY DETECTION BASED ON FAR-END AND NEAR-END STATISTICS   | 08/28/07   | 012755/0005              |
| 17  | 7835311   | BU2038C1<br>050228-4350   | VOICE-ACTIVITY DETECTION BASED ON FAR-END AND NEAR-END STATISTICS   | 11/16/10   | 012755/0005              |
| 18  | 7443910   | BU1248C1<br>050228-4360   | PHY CONTROL MODULE FOR A MULTI-PAIR GIGABIT TRANSCEIVER   | 10/28/08   | 010763/0692              |

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|-----|-----------|-----------------------------|---|------------|--------------------------|
| 19  | 7151796   | BU1805.1<br>050228-4370     | HIGH PERFORMANCE EQUALIZER WITH ENHANCED DFE HAVING REDUCED COMPLEXITY  | 12/19/06   | 012600/0177              |
| 20  | 7230982   | BU1805C1<br>050228-4380     | DECISION FEEDBACK EQUALIZER FOR MINIMUM AND MAXIMUM PHASE CHANNELS  | 06/12/07   | 012613/0855              |
| 21  | 6771196   | BU2006.1<br>050228-4390     | PROGRAMMABLE VARIABLE-LENGTH DECODER  | 08/03/04   | 013675/0529              |
| 22  | 7580457   | BU3336<br>050228-4400       | UNIFIED SYSTEM FOR PROGRESSIVE AND INTERLACED VIDEO TRANSMISSION  | 08/25/09   | 015064/0577              |
| 23  | 7995535   | BU4737C2<br>050228-4420     | METHOD AND APPARATUS FOR DISTRIBUTING DATA TO A MOBILE DEVICE USING PLURAL ACCESS POINTS                                | 08/09/11   | 017262/0789              |
| 24  | 7925220   | BU6221.13<br>050228-4430    | METHOD AND SYSTEM FOR MATCHING AN INTEGRATED FM SYSTEM TO AN ANTENNA UTILIZING ON-CHIP MEASUREMENT OF REFLECTED SIGNALS | 04/12/11   | 019813/0107              |
| 25  | 7974590   | BU6221.2<br>050228-4440     | METHOD AND SYSTEM FOR SIMULTANEOUS SIGNAL TRANSMISSION ON MULTIPLE SELECTED FREQUENCIES                                 | 07/05/11   | 023203/0027              |
| 26  | 7983617   | BU6221.5<br>050228-4450     | METHOD AND SYSTEM FOR TRANSMITTING MULTIPLE CHANNELS ON FM BANDS  | 07/19/11   | 020544/0637              |
| 27  | 7006563   | BU1805<br>050228-4460       | DECISION FEEDBACK EQUALIZER FOR MINIMUM AND MAXIMUM PHASE CHANNELS  | 02/28/06   | 012613/0855              |
| 28  | 6304598   | BU1021<br>050228-4470       | APPARATUS FOR, AND METHOD OF, REDUCING POWER DISSIPATION IN A COMMUNICATIONS SYSTEM                                     | 10/16/01   | 009422/0821              |
| 29  | 6954490   | BU1230C1<br>050228-4480     | FULLY INTEGRATED ETHERNET TRANSMITTER ARCHITECTURE WITH INTERPOLATING FILTERING   | 10/11/05   | 010523/0070              |
| 30  | 6459746   | BU1247D1<br>050228-4490     | MULTI-PAIR GIGABIT ETHERNET TRANSCEIVER   | 10/01/02   | 010694/0029              |
| 31  | 6771725   | BU1247D1C1<br>50228-4500    | MULTI-PAIR GIGABIT ETHERNET TRANSCEIVER   | 08/03/04   | 010694/0029              |
| 32  | 6411647   | BU1230<br>050228-4510       | FULLY INTEGRATED ETHERNET TRANSMITTER ARCHITECTURE WITH INTERPOLATING FILTERING   | 06/25/02   | 010523/0070              |
| 33  | 6731691   | BU1247C2<br>050228-4520     | MULTI-PAIR GIGABIT ETHERNET TRANSCEIVER HAVING ADAPTIVE DISABLING OF CIRCUIT ELEMENTS                                   | 05/04/04   | 010694/0029              |
| 34  | 7305029   | BU1247C2D1<br>050228-4530   | MULTI-PAIR GIGABIT ETHERNET TRANSCEIVER   | 12/04/07   | 010694/0029              |
| 35  | 7570701   | BU1247C2D1C1<br>050228-4540 | MULTI-PAIR GIGABIT ETHERNET TRANSCEIVER   | 08/04/09   | 010694/0029              |
| 36  | 7672368   | BU1248D1                    | PHY CONTROL MODULE FOR A MULTI-PAIR GIGABIT TRANSCEIVER   | 03/02/10   | 010228/0504              |

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|-----|-----------|-----------------------------|---|------------|-----------------------------|
|     |           | 050228-4550                 |   |            |                             |
| 37  | 7933341   | BU1338.1<br>050228-4560     | SYSTEM AND METHOD FOR HIGH SPEED COMMUNICATIONS USING DIGITAL SIGNAL PROCESSING                                   | 04/26/11   | 011921/0320                 |
| 38  | 6477200   | BU1247<br>050228-4570       | MULTI-PAIR GIGABIT ETHERNET TRANSCEIVER   | 11/05/02   | 010694/0029                 |
| 39  | 6898238   | BU1201C1<br>050228-4580     | APPARATUS FOR, AND METHOD OF, REDUCING POWER DISSIPATION IN A COMMUNICATIONS SYSTEM                               | 05/24/05   | 009422/0821                 |
| 40  | 7194028   | BU1247C2D2<br>050228-4590   | MULTI-PAIR GIGABIT ETHERNET TRANSCEIVER HAVING DECISION FEEDBACK EQUALIZER  | 03/20/07   | 010694/0029                 |
| 41  | 7453935   | BU1247C2D2C1<br>50228-4600  | MULTI-PAIR GIGABIT ETHERNET TRANSCEIVER HAVING DECISION FEEDBACK EQUALIZER  | 11/18/08   | 010694/0029                 |
| 42  | 7197069   | BU1247C2D3<br>050228-4610   | MULTI-PAIR GIGABIT ETHERNET TRANSCEIVER HAVING ADAPTIVE DISABLING OF CIRCUIT ELEMENTS                             | 03/27/07   | 010694/0029                 |
| 43  | 7792186   | BU1247C2D3C1<br>050228-4620 | MULTI-PAIR GIGABIT ETHERNET TRANSCEIVER HAVING A SINGLE-STATE DECISION FEEDBACK EQUALIZER                         | 09/07/10   | 010694/0029                 |
| 44  | 7194029   | BU1247C2D4<br>050228-4630   | Multi-pair gigabit ethernet transceiver having adaptive disabling or circuit elements                             | 03/20/07   | 010694/0029                 |
| 45  | 6928106   | BU1248<br>050228-4640       | PHY CONTROL MODULE FOR A MULTI-PAIR GIGABIT TRANSCEIVER   | 08/09/05   | 010763/0692                 |
| 46  | 7801240   | BU1247C2D2C2<br>050228-4650 | MULTI-PAIR GIGABIT ETHERNET TRANSCEIVER   | 09/21/10   | 010694/0029                 |
| 47  | 7801241   | BU1247C2D2C3<br>050228-4660 | MULTI-PAIR GIGABIT ETHERNET TRANSCEIVER   | 09/21/10   | 010694/0029                 |
| 48  | 6823483   | BU1248.1<br>050228-4670     | PHYSICAL CODING SUBLAYER FOR A MULTI-PAIR GIGABIT TRANSCEIVER   | 11/23/04   | 010764/0358                 |
| 49  | 7983569   | BU1338<br>050228-4680       | HIGH-SPEED TRANSMISSION SYSTEM FOR OPTICAL CHANNELS   | 07/19/11   | 011679/0588                 |
| 50  | 7379498   | BU2094<br>050228-4690       | RECONSTRUCTING A COMPRESSED STILL IMAGE BY TRANSFORMATION TO A COMPRESSED MOVING PICTURE IMAGE                    | 05/27/08   | 012693/0858                 |
| 51  | 6411117   | BU1249<br>050228-4700       | DYNAMIC REGISTER WITH IDQ TESTING CAPABILITY  | 06/25/02   | 010393/0131                 |
| 52  | 6965610   | BU1272<br>050228-4710       | SYSTEM AND METHOD FOR PROVIDING COMPATIBILITY BETWEEN DIFFERENT TRANSCEIVERS IN A MULTI-PAIR COMMUNICATION SYSTEM | 11/15/05   | 012458/0191                 |
| 53  | 7668108   | BU1426C1<br>050228-4720     | PERFORMANCE INDICATOR FOR A HIGH-SPEED COMMUNICATION SYSTEM   | 02/23/10   | 011948/0396                 |
| 54  | 7965647   | BU1426C2                    | PERFORMANCE INDICATOR FOR A HIGH-   | 06/21/11   | 011948/0396                 |

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|-----|-----------|-------------------------|---|------------|-----------------------------|
|     |           | 050228-4730             | SPEED COMMUNICATION SYSTEM  |            |                             |
| 55  | 6449110   | BU4745<br>050228-4740   | OPTIMIZING OPERATION OF A DISK STORAGE SYSTEM BY INCREASING THE GAIN OF A NON-LINEAR TRANSDUCER AND CORRECTING THE NON-LINEAR DISTORTIONS USING A NON-LINEAR CORRECTION CIRCUIT | 09/10/02   | 014428/0418                 |
| 56  | 6032284   | BU4752<br>050228-4750   | TRELLIS CODING SYSTEM FOR DISC STORAGE SYSTEMS  | 02/29/00   | 014428/0418                 |
| 57  | 6505320   | BU4763<br>050228-4760   | MULTIPLE-RATE CHANNEL ENDEC IN A COMMUTED READ/WRITE CHANNEL FOR DISK STORAGE SYSTEMS   | 01/07/03   | 014428/0418                 |
| 58  | 6865234   | BU1082<br>050228-4770   | PAIR-SWAP INDEPENDENT TRELLIS DECODER FOR A MULTI-PAIR GIGABIT TRANSCEIVER  | 03/08/05   | 010522/0499                 |
| 59  | 6185261   | BU1201<br>050228-4780   | DETERMINATION OF TRANSMITTER DISTORTION   | 02/06/01   | 010373/0004                 |
| 60  | 6731914   | BU1201C1<br>050228-4790 | DETERMINATION OF TRANSMITTER DISTORTION   | 05/04/04   | 010373/0004                 |
| 61  | 7068982   | BU1201C1<br>050228-4800 | DETERMINATION OF TRANSMITTER DISTORTION   | 06/27/06   | 010373/0004                 |
| 62  | 7369608   | BU1231C2<br>050228-2810 | DYNAMIC REGULATION OF POWER CONSUMPTION OF A HIGH-SPEED COMMUNICATION SYSTEM  | 05/06/08   | 010228/0504                 |
| 63  | 6762762   | BU1267C1<br>050228-4820 | GRAPHICS ACCELERATOR  | 07/13/04   | 011368/0527                 |
| 64  | 6201831   | BU1287<br>050228-4830   | DEMODULATOR FOR A MULTI-PAIR GIGABIT TRANSCEIVER  | 03/13/01   | 010605/0173                 |
| 66  | 7656938   | BU1287C2<br>050228-4840 | DEMODULATOR FOR A MULTI-PAIR GIGABIT TRANSCEIVER  | 02/02/10   | 010605/0173                 |
| 66  | 7936840   | BU1287C3<br>050227-4850 | DEMODULATOR FOR A MULTI-PAIR GIGABIT TRANSCEIVER  | 05/03/11   | 010605/0173                 |
| 67  | 7970124   | BU2037C1<br>050228-4860 | ADAPTIVE GAIN CONTROL BASED ON ECHO CANCELLER PERFORMANCE INFORMATION   | 06/28/11   | 012818/0159                 |
| 68  | 6861834   | BU1404<br>050228-4870   | SYSTEM AND METHOD FOR MEASURING THE POWER CONSUMED BY A CIRCUIT ON A PRINTED CIRCUIT BOARD  | 03/01/05   | 011942/0526                 |
| 69  | 7034897   | BU2019<br>050228-4270   | METHOD OF OPERATING A VIDEO DECODING SYSTEM   | 04/25/06   | 012761/0060                 |